Improved Results Reflect Device Evolution and Refined Patient Selection

Rami O. Tadros, Peter L. Faries, Sharif H. Ellozy, Rachel Schrier, Sung Yup Kim, Rajesh Malik, Ageliki G. Vouyouka, Robert A. Lookstein, Michael L. Marin.

Vascular Surgery, The Mount Sinai Medical Center, New York, NY

**Objectives:** There have been three eras in the development of EVAR: physician-made and early industry devices, intermediary commercial endografts, and modern stentgrafts. This study analyzed the differences in outcomes between these three groups.

**Methods:** From 1992-2012, 1290 patients underwent elective EVAR. Fifteen different devices were used during this time. The three eras were defined as: Era1: 1992-96; Era2: 1997-2006; Era3: 2007-2012. Grafts used in each era were: Era1: physician-made and EVT; Era2: Talent, Aneurx, Excluder, Quantum LP, Zenith, Vanguard, PG AAA, Ancure, Endologix, and Teramed; Era3: Talent, Aneurx, Endurant, Excluder, Zenith, and Aptus.

**Results:** Mean age was 75.2 years and 85% were men. First generation patients were higher surgical risk (Mean Glasgow Aneurysm Scores: Era1 84.81 vs Era3: 79.95, \( P = .048 \)). Adjunctive procedures increased from Era1 to Era3 (\( P = .014 \)). Procedure times (\( P < .001 \)), Blood loss (\( P = .01 \)), and Length of stay (\( P < .001 \)) have declined overtime. Major peri-operative complications (Era1: 23%, Era2: 9.2%, and Era3: 4.5%; \( P < .001 \)) and AAA-related peri-operative mortality (Era1: 17.6%, Era2: 2.3%, and Era3: 0.0%; \( P < .001 \)) have decreased. Type 1 and 3 endoleaks (\( P = .011 \)) and the need for reintervention (\( P < .001 \)) have diminished. Median survival for all causes of death and freedom from aneurysm-related mortality significantly improved (Fig).

**Conclusions:** EVAR has evolved over the last 20 years resulting in an overall improvement in efficiency, outcomes and procedural success.

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Significant Predictors of Open Surgical Conversion Following Failed Percutaneous Approach for Endovascular Aortic Aneurysm Repair


Vascular & Endovascular Surgery Division, University of West Virginia, Charleston, WV

**Objectives:** To determine predictors of conversion from percutaneous (PEVAR) to an open approach (OEVAR) during groin access of endovascular aortic aneurysm repair (EVAR).

**Fig.**